

### 13 GLOSSARY

**100-Year flood:** A flood level that, on average, has a 1% probability of being equaled or exceeded during any given year.

**Acre:** A unit of land equal to 43,560 ft<sup>2</sup>; a square parcel of land approximately 208.5 ft on each side.

**Aesthetics:** Things that can be appreciated through the five senses (e.g., visual resources).

**Affected environment:** The existing biological, physical, social, and economic conditions of an area subject to change, both directly and indirectly, as the result of a proposed human action.

**Air pollutant:** An airborne substance that could, in high enough concentrations, harm living things or cause damage to materials. From a regulatory perspective, an air pollutant is a substance for which emissions or atmospheric concentrations are regulated or for which maximum guideline levels have been established because of potential harmful effects on human health and welfare.

**Air quality standards:** The level of pollutants prescribed by regulation that may not be exceeded during a specified time in a defined area.

**Alevin:** A salmon hatched out of its egg, but still attached to the yolk sac.

**All-terrain vehicle (ATV):** An off-road motor vehicle designed for use on rough, sandy, or marshy ground, as well as roads.

**Alternating current (AC):** A flow of electrical current that increases to a maximum in one direction, decreases to zero, and then reverses direction and reaches maximum in the other direction. The cycle is repeated continuously. The number of such cycles per second is equal to the frequency, measured in hertz (Hz). U.S. commercial power is 60 Hz.

**Alternative routes:** Routes that have been identified on the basis of constraint mapping, stakeholder consultation, impact assessment, and other factors.

**Ambient:** Undisturbed, natural conditions such as temperature; surrounding conditions.

**Ambient noise:** The background noise in an area or environment. It is a composite of sounds from many sources near and far.

**Ampere:** The unit of measurement of electric current. It is proportional to the quantity of electrons flowing past a given point on a conductor for one second.

**Anadromous species:** Fish species, such as salmon, that migrate from saltwater to freshwater to reproduce.

**Anthropogenic:** Derived or resulting from human activity.

**Applicant:** Bangor Hydro-Electric Company (BHE), which is applying to amend Presidential Permit PP-89.

**Aquifer:** A permeable underground formation that yields usable amounts of water to a well or spring. The formation could be sand, gravel, limestone, and/or sandstone.

**Archaeological site:** Any location where humans have altered the terrain or discarded artifacts during either prehistoric or historic times.

**Artifact:** An object produced or shaped by human workmanship of archaeological or historical interest.

**Attainment area:** An area that the U.S. Environmental Protection Agency has designated as being in compliance with one or more of the National Ambient Air Quality Standards for sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter. Any area may be in attainment for some pollutants but not for others.

**Attenuation:** The reduction in level of sound.

**Bedrock:** The more or less solid rock in place either at or beneath the surface of the earth.

**Best management practices (BMPs):** A practice (or combination of practices) that is determined to provide the most effective, environmentally sound, and economically feasible means of managing an activity and mitigating its impacts.

**Biological assessment (BA):** A document prepared for the Endangered Species Act Section 7 process to determine whether a proposed activity under the authority of a Federal action agency is likely to adversely affect listed species, proposed species, or designated critical habitat.

**Biological resources:** Fish, wildlife, plants, biota, and their habitats, which may be land, air, or water.

**Biodiversity:** The number and variety of different organisms in an ecosystem. It is used to describe species richness, ecosystem complexity, and genetic variation.

**Biota:** The living organisms in a given region.

**Bivalves:** A mollusk whose body is enclosed by two hinged shells (e.g., mussels and clams).

**Bog:** Waterlogged, spongy ground consisting primarily of mosses and containing decaying vegetation that may develop into peat.

**Borrow pit:** A pit or excavation area used for gathering earth materials (borrow) such as sand or gravel.

**Browse:** Twigs, shoots, and leaves of woody plants used as food by woodland mammals such as white-tailed deer, moose, and snowshoe hare.

**Buffer area:** An area of land and/or plants adjacent to a stream or other water body of sufficient width to lessen the entrance of pollutants (e.g., fertilizers, pesticides, and eroded soils) into a water body; provide shade; limit erosion; and promote natural influx of plant nutrients.

**Bus:** A conductor or an assembly of conductors for collecting electric currents and distributing them to outgoing feeder lines.

**Cancer:** A term applied to a variety of different diseases characterized by abnormal new growth of cells and the spread of those cells to new locations within the body.

**Candidate species:** Plants and animals for which the U.S. Department of the Interior U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration National Marine Fisheries Service has sufficient information on biological vulnerability and threats to justify proposing to add them to the threatened and endangered species list, but cannot do so immediately because other species have a higher priority for listing.

**Canopy:** The upper forest layer of leaves consisting of tops of individual trees whose branches sometimes cross each other.

**Capable tree:** A tree that would grow within the clearance zone of the conductors within the next 3 to 4 years.

**Capacity:** The load for which a generator, turbine, transformer, transmission circuit, apparatus, station, or system is rated. Capacity is also used synonymously with capability.

**Carbon monoxide (CO):** A colorless, odorless gas that is toxic if breathed in high concentrations over a period of time. It is formed as the product of the incomplete combustion of hydrocarbons (fuel). Carbon monoxide is one of six criteria air pollutants for which the U.S. Environmental Protection Agency has set National Ambient Air Quality Standards.

**Carcinogen:** A cancer-causing substance.

**Census blocks:** Census blocks are defined by the U.S. Bureau of the Census and are the smallest geographic unit for which that agency tabulates data.

**Clear-cut:** A forest harvesting practice in which all or most of the trees are removed from a site.

**Code of Federal Regulations (CFR):** All Federal regulations in force are published in codified form in the *Code of Federal Regulations*.

**Cogeneration:** Production of electrical (or mechanical) energy and thermal energy from the same primary energy source.

**Coldwater fisheries:** Fish assemblages characterized by trout, char, and/or whitefish. Water temperatures must be low enough to meet the thermal requirements for survival and spawning for natural populations to be maintained. If temperatures are too high, seasonal or annual nonsustaining coldwater fisheries could be maintained by stocking.

**Community (biotic):** All plants and animals occupying a specific area under relatively similar conditions.

**Conductor:** Any material capable of carrying an electrical current.

**Coniferous forest:** A forest dominated by cone-bearing, usually evergreen, trees.

**Conservation easement:** A legal agreement between a property owner and a qualified conservation organization or agency that restricts the uses that may be made of the property. Most conservation easements limit or prohibit development of the land for commercial, industrial, or residential uses in perpetuity.

**Construction lay-down area:** Work area required for each transmission line support structure to accommodate structure materials and construction equipment.

**Contrast:** The effect of differences in the form, line, color, or texture of the landscape features within the area being viewed.

**Corona effect:** The electrical breakdown of air into charged particles. It is caused by the electric field at the surface of conductors.

**Council on Environmental Quality (CEQ):** Established by the National Environmental Policy Act. Council on Environmental Quality regulations (40 CFR Parts 1500–1508) describe the process for implementing the National Environmental Policy Act, including preparation of environmental assessments and environmental impact statements, and the timing and extent of public participation.

**Criteria air pollutant:** An air pollutant that is regulated by the National Ambient Air Quality Standards. The U.S. Environmental Protection Agency must describe the characteristics and potential health and welfare effects that form the basis for setting or revising the standard for each regulated pollutant. Criteria pollutants are sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter.

**Critical habitat:** Habitat essential to the conservation of an endangered or threatened species that has been designated as critical by the U.S. Department of the Interior U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration National Marine Fisheries Service following the procedures outlined in the Endangered Species Act and its implementing regulations (50 CFR 424). See *Endangered species* and *Threatened species*.

**Cropland:** Land that currently supports agricultural crops, including silage and feed grains, bare farm fields resulting from cultivation or harvest, and maintained orchards.

**Cultural resources:** The archaeological sites, historic structures and features, and traditional cultural properties of human occupation or use, including manufactured objects, such as tools or buildings. Cultural resources may also include objects, sites, or geological/geographical locations significant to Native Americans.

**Culvert:** A pipe or covered channel that directs surface water through a raised embankment or under a roadway from one side to the other.

**Cumulative effects or impacts:** As defined by 40 CFR 1508.7, cumulative effects are the impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

**Current:** The movement of electricity through a conductor.

**Cutting cycle:** The period of time between major harvests in a stand of trees. It is usually determined by the type of management being practiced, the condition and type of the forest, and the growing conditions of the soil.

**Danger trees:** Trees located outside or inside the right-of-way that pose a threat to the operation of the transmission line.

**Decibel (dB):** A unit for expressing the relative intensity of sounds on a scale from 0 for the average least-perceptible sound to about 130 for the average pain level. For traffic and industrial noise measurements, the A-weighted decibel [dB(A)], a frequency-weighted noise unit, is widely used. The A-weighted decibel scale corresponds approximately to the frequency response of the human ear and thus correlates well with loudness. A 10-dB(A) increase represents a doubling of the noise level, while a 10-dB(A) decrease results in the halving of the noise level.

**Deciduous:** Trees or shrubs that lose their leaves each year during a cold or dry season.

**Demographic:** Pertaining to the study of human population characteristics, including size, growth rates, density, distribution, migration, birth rates, and mortality rates.

**Diameter at breast height (DBH):** The diameter of a standing tree measured at 4.5 ft (1.4 m) above the ground.

**Direct current (DC):** A steady current that flows only in one direction. The current from batteries is an example of direct current.

**Direct effects (direct impacts):** As defined by 40 CFR 1508.8, these are effects that are caused by the action and occur at the same time and place as the action.

**Disturbance:** An event that changes the local environment by removing organisms or opening up an area, thereby facilitating colonization by new, often different, organisms.

**Disturbed areas:** Areas where natural vegetation and soils have been removed or disrupted.

**Diversity:** The distribution and abundance of different plant and animal communities and species within an area.

**Dormant:** In a condition of biological rest or inactivity characterized by a slowing down of growth or development and the suspension of many metabolic processes.

**Double-circuit:** A transmission line consisting of two systems of conductors (or wires) through which electric current flows.

**Drainage:** Natural channel through which water flows sometime during the year. Natural and artificial means for effecting discharge of water as by a system of surface and subsurface passages.

**Drumlin:** An elongated or oval hill of glacial till.

**Ecology:** The branch of science dealing with the interrelationships of living organisms with one another and with their nonliving environment.

**Ecoregion:** A geographically distinct area of land that is characterized by a distinctive climate, ecological features, and biotic communities.

**Ecosystem:** The combination of the biological (biotic) community and the nonliving (abiotic) environment.

**Edge or edge habitat:** An area where two habitat types meet (e.g., forest and field).

**Effects (or impacts):** As used in National Environmental Policy Act documentation, the terms effects and impacts are synonymous. Effects can be ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health; effects can be direct, indirect, or cumulative. Effects include both beneficial and detrimental impacts. Defined at 40 CFR 1508.8.

**Electric and magnetic fields (EMF):** Electric and magnetic fields are generated when charged particles (e.g., electrons) are accelerated. Charged particles in motion produce magnetic fields. Electric and magnetic fields are typically generated by alternating current in electrical conductors. Also referred to as electromagnetic fields.

**Elevation:** Height above sea level.

**Eligible cultural resource:** A cultural resource that has been evaluated and reviewed by an agency and the State Historic Preservation Office and recommended as eligible for inclusion in the *National Register of Historic Places*, based on the criteria of significance. The criteria of significance consider American history, architecture, archaeology, engineering, and culture. The

criteria require integrity and association with lives or events, distinctiveness for any of a variety of reasons, or importance because of information the property does or could hold.

**Emergent vegetation:** Aquatic vegetation that reaches above the surface of the water.

**Emergent wetlands:** Wetlands, commonly called marshes and wet meadows, that are dominated by grasses, sedges, and other nonwoody plants.

**Emission standards:** Requirements established by a State, local government, or the U.S. Environmental Protection Agency administrator that limit the quantity, rate, or concentration of emissions of air pollutants on a continuous basis.

**Emissions:** Pollution discharged into the atmosphere from smoke stacks, other vents, and surface areas of commercial or industrial facilities, residential chimneys, and vehicles.

**Endangered species:** Plants or animals that are in danger of extinction throughout all or a significant portion of their ranges and that have been listed as endangered by the U.S. Department of the Interior U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration National Marine Fisheries Service following the procedures outlined in the Endangered Species Act and its implementing regulations (50 CFR Part 424). Some States also list species as endangered.

**Endemic:** Unique to a particular region.

**Energy:** That which does or is capable of doing work. It is measured in terms of the quantity of work it is capable of doing; electric energy is usually measured in kilowatt-hours.

**Environment:** The aggregate of physical, biological, economic, and social factors affecting organisms in an area.

**Environmental analysis:** An analysis of alternative actions and their predictable environmental effects, including physical, biological, economic, and social consequences, and their interactions; short- and long-term effects; and direct, indirect, and cumulative effects.

**Environmental impact statement (EIS):** The detailed written statement that is required by Section 102(2)(C) of the National Environmental Policy Act for a proposed major Federal action significantly affecting the quality of the human environment. A U.S. Department of Energy environmental impact statement is prepared in accordance with applicable requirements of the Council on Environmental Quality National Environmental Policy Act regulations in 40 CFR Parts 1500–1508 and Department of Energy National Environmental Policy Act regulations in 10 CFR Part 1021. The statement includes, among other information, discussions of the environmental impacts of the proposed action and the range of reasonable alternatives, adverse environmental effects that cannot be avoided should the proposal be implemented, the relationship between short-term uses of the human environment and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources.

**Environmental justice:** An identification of potential disproportionately high and adverse impacts on low-income and/or minority populations that may result from proposed Federal actions (Executive Order 12898).

**Ephemeral:** Lasting a very short time.

**Epicenter:** The point on the earth's surface directly above the focus of an earthquake.

**Epidemiology:** The quantitative study of the occurrence of human states and disease states in human populations.

**Erosion:** The movement of exposed soil caused by the action of rain, snowmelt, or wind.

**Esker:** A long, narrow ridge or mound of sand, gravel, and boulders deposited by a stream flowing on, within, or beneath a stagnant glacier.

**Essential fish habitat (EFH):** Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The conservation of essential fish habitat is an important component of building and maintaining sustainable fisheries.

**Essential wildlife habitat:** Designated areas in the State of Maine that currently or historically provide physical or biological features essential to the conservation of a Federally listed endangered or threatened species, and which could require special management considerations.

**Even-aged stand:** A stand in which most trees originated around the same time. Even-aged stands result from cutting all trees in a stand within a relatively short period of time, major natural disturbance, or reversion of cleared land to forest.

**Extremely low frequency (ELF):** Extremely low frequency fields are at the end of the electromagnetic spectrum. They range between 3 to 3,000 Hz.

**Fault:** A fracture or a zone of fractures within a rock formation along which vertical, horizontal, or transverse slippage has occurred.

**Fauna:** Animals, especially those of a specific region, considered as a group.

**Feeder lines:** Power lines that travel out from substations to "feed" smaller distribution lines in a certain geographic area.

**Feller buncher:** A large logging machine similar to a backhoe with an attachment that cuts trees in place of a shovel. It consists of a standard heavy equipment base with a tree-grabbing device equipped with a saw or other device at the bottom that cuts the tree off at the base and places it on the stack of cut trees.

**Fen:** A type of wetland that accumulates peat deposits. Fens are less acidic than bogs, deriving most of their water from groundwater rich in calcium and magnesium. See *Bog* and *Peat*.



**Field effect:** Induced electric currents and voltages as well as related effects that might occur as a result of electric and magnetic fields at ground level.

**Field intensity:** The strength of an electric field.

**Flashover:** A sudden surge of voltage causing an arc between conductors.

**Fledge:** To leave the nest, usually with the ability to fly or run.

**Floodplain:** The lowlands adjoining inland and coastal waters and relatively flat areas and flood-prone areas of offshore islands. The base floodplain is defined as the 100-year (1%) floodplain. The critical action floodplain is defined as the 500-year (0.2%) floodplain.

**Flora:** Plants, especially, those of a specific region, considered as a group.

**Flyway:** A concentrated, predictable flight path of migratory bird species between their breeding ground and their wintering area.

**Foliage height diversity (FHD):** Habitat complexity, or number of vegetation layers deemed necessary to maintain populations of songbirds.

**Forage:** Vegetation used for food by wildlife, particularly big game wildlife and domestic livestock.

**Forbs:** Nonwoody plants that are not grasses or grasslike.

**Foreground-middleground:** The area visible from a travel route, use area, or other observer position to a distance of 3 to 5 mi (5 to 8 km). The outer boundary of this zone is defined as the point where the texture and form of individual plants are no longer apparent in the landscape, and vegetation is apparent only in pattern or outline.

**Forest types:** Associations of tree species that have similar ecological requirements. Some common forest types in Maine are spruce-fir, northern hardwoods, pine-oak, and poplar-birch. Often types are simplified into hardwood, softwood, and mixed wood.

**Forested wetland:** A wetland dominated by trees taller than 20 ft (6 m).

**Forest land:** Land at least 10% stocked by forest trees of any size, or land that formerly had such a tree cover and is not currently developed for a nonforest use.

**Fossil fuel:** Natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such material for the purpose of creating useful heat.

**Fry:** Salmon stage just after the alevin, but before the parr stage in midsummer.

**Fugitive dust:** The dust released from activities associated with construction, manufacturing, or transportation.

**Furbearers:** Species that are of primary economic importance for their fur rather than as a food source.

**Gauss (G):** A unit for expressing the strength of a magnetic field. Magnetic field strengths associated with transmission lines and electrical appliances are generally in the milligauss (mG) range.

**Geologic resources:** Material of value to humans that is extracted (or is extractable) from solid earth, including minerals, rocks, and metals.

**Geology:** The science that deals with the study of the materials, processes, environments, and history of the earth, including the rocks and their formation and structure.

**Geographic information system (GIS):** A system of databases describing, mapping, measuring, and displaying land features.

**Geomagnetic fields:** Steady (direct current) magnetic fields caused by the earth.

**Glacial till:** The nonsorted, nonstratified sediment deposited by glacier ice and consisting of clay, sand, gravel, and boulders.

**Glacier:** A large mass of ice, formed by the compaction of snow, that persists all year and flows slowly over the surface of the ground or down a valley.

**Glaciofluvial materials:** Materials that exhibit clear evidence of having been deposited by glacial meltwater streams either directly in front of, or in contact with, glacier ice.

**Glaciomarine sediments:** Sediments of glacial origin laid down in a marine environment in close proximity to glacier ice. They include materials settling from suspension and from submarine gravity flows, and settled particles released by melting of both floating ice and ice shelves.

**Gravel:** Rounded or angular fragments of rock up to 3 in. (8 cm) in diameter.

**Great pond:** A Maine classification for a natural body of water greater than 10 acres (4 ha), or any man-made water body of 30 acres (12 ha) or more.

**Grilse:** Salmon that have spent 1 year at sea and then return to freshwater.

**Ground-level ozone:** Ozone concentrations near the earth's surface in the troposphere (below 7 mi [11 km]). It is formed by a chemical reaction between volatile organic pollutants and oxides of nitrogen in the presence of sunlight. Ozone concentrations can reach unhealthy levels when the weather is hot and sunny with little or no wind. Ozone at the ground level can cause adverse

effects on lung function and other respiratory effects. It is one of the six criteria pollutants for which the U.S. Environmental Protection Agency has adopted National Ambient Air Quality Standards.

**Grounding:** Connecting an object that conducts electricity, such as a wire or the metal frame of an appliance, to an object with zero potential to conduct electricity (such as the earth).

**Groundwater:** Water within the earth that supplies wells and springs.

**Guy wire:** Wire or cable used to secure and stabilize support structures.

**Habitat:** The environment in which the life-cycle requirements of a plant or animal are supplied.

**Habitat fragmentation:** The breaking up of a single large habitat area such that the remaining habitat patches are smaller and farther apart from each other.

**Hardwoods:** General term for deciduous trees.

**Harvest:** The cutting, felling, and removal of forest timber or other forest materials.

**Herbaceous plants:** Nonwoody plants.

**Herbicides:** Chemicals used to kill undesirable vegetation.

**Hertz (Hz):** The unit of frequency for the back and forth movements of alternating currents and their resulting magnetic fields corresponding to one cycle per second. In the United States, the electric power frequency is 60 Hz.

**Historic properties:** Under the National Historic Protection Act, these are properties of national, State, or local significance in American history, architecture, archaeology, engineering, or culture that are worthy of preservation.

**Historic site:** The site of a significant event, prehistoric or historic activity, or structure or landscape (existing or vanished), where the site itself possesses historical, cultural, or archaeological value apart from the value of any existing structure or landscape.

**Historic structure:** A standing structure that has historic significance.

**Hydrocarbons:** Organic compounds occurring in petroleum, natural gas, and coal.

**Hydroelectric:** Of or relating to production of electricity by water power.

**Hydrology:** The study of water that covers the occurrence, properties, distribution, circulation, and transport of water, including groundwater, surface water, and rainfall.

**Impacts:** See *Effects*.

**IMPLAN®:** An input-output-based economic impact modeling system.

**Indigenous species:** Species that occur within their historic biogeographical range (i.e., naturally occurring native species).

**Indirect effects (indirect impacts):** As defined by 40 CFR 1508.8, these are effects that are caused by the action but are later in time or farther removed in distance but which are still reasonably foreseeable.

**Infrastructure:** The basic facilities, services, and utilities needed for the function of an industrial facility or site.

**Interested parties:** Those groups or individuals that are interested, for whatever reason, in the project and its progress. Interested parties include, but are not limited to, private individuals, public agencies, organizations, customers, and potential customers.

**Intermittent stream:** A stream or portion of a stream that flows only in direct response to precipitation or snowmelt. It is dry for part of the year and has a definable channel with evidence of scour or sediment deposition.

**Introduced species:** Species that are found to occur in areas outside of their natural distributions as a direct result of human intervention. Often synonymously referred to as alien, foreign, exotic, invasive, nonnative, or nonindigenous species.

**Irretrievable:** Applies to the loss of production, harvest, or use of natural resources. For example, some or all of the timber production from an area is lost irretrievably while it is serving as a right-of-way. The production lost is irretrievable, but the action is not irreversible. If the use changes, it is possible to resume timber production.

**Irreversible:** Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.

**Kame:** A short ridge, hill, or mound of stratified drift deposited by glacial meltwater.

**Kelt:** A salmon that has spawned and is still in freshwater but is on its way back to the sea.

**Kilovolt (kV):** The electrical unit of power that equals 1,000 volts.

**Kilowatt-hour (kWh):** Unit of work or energy equal to that expended by 1 kilowatt (1,000 watts) in 1 hour.

**Land use:** The way land is developed and used by humans.

**Land Use Regulation Commission (LURC):** A division of the Maine Department of Conservation that has jurisdiction over land use in unorganized townships.

**Landing (or yard):** A cleared area within or adjacent to a timber harvest where logs or tree-length materials are processed, piled, stored, and loaded for transport to a sawmill or other facility.

**Landform:** Any physical, recognizable form on the earth's surface, having a characteristic shape and produced by natural causes.

**Landscape:** An area composed of interacting ecosystems that are repeated because of geology, land, soils, climate, biota, and human influences throughout the area. Landscapes are generally of a size, shape, and pattern that are determined by interacting ecosystems.

**Lead (Pb):** A gray-white metal that is listed as a criteria air pollutant. Health effects from exposure to lead include brain and kidney damage and learning disabilities. Sources include leaded gasoline and metal refineries. Lead is one of six criteria air pollutants for which the U.S. Environmental Protection Agency has set National Ambient Air Quality Standards.

**Line losses:** The general term applied to energy and power lost in the operation of an electric system. Losses occur principally as energy transformations from kilowatt-hours to wasted heat in electrical conductors and apparatus. Specifically, in electricity transmission lines, losses are due to the resistance of the copper or aluminum wires themselves. For transmission lines that have the same characteristics of configuration, voltage, and load, line losses would be a function of line length.

**Long-term effects:** Effects that would remain permanently or for many years following completion of the project.

**Low-income population:** A population that is classified by the U.S. Bureau of the Census 2000 as having an aggregated mean income level for a family less than \$17,463 (in 1999). This level is adjusted through the poverty index by using a standard of living percentage change where applicable. In identifying low-income populations, a community may be considered either as a group of individuals living in geographic proximity to one another, or as a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effects.

**Leukemia:** Leukemia is considered a cancer of the blood. It describes any of the various diseases found in bone marrow that results in unrestrained production of white blood cells.

**Maine Board of Environmental Protection (MBEP):** The Maine Board of Environmental Protection is part of the Maine Department of Environmental Protection. The Board has decision-making authority independent of the Commission of the Main Department of Environmental Protection. The Board is composed of 10 volunteer citizen members, appointed by the Governor of Maine and confirmed by the Maine Legislature, to make decisions on selected permit applications and provide a forum for public participation in the Maine Department of Environmental Protection's decisions.

**Maine Department of Environmental Protection (MDEP):** The Maine Department of Environmental Protection is responsible for protecting and restoring Maine's natural resources and enforcing the State's environmental laws.

**Maine Department of Inland Fisheries and Wildlife (MDIFW):** The Maine Department of Inland Fisheries and Wildlife is responsible for establishing and enforcing rules and regulations governing fishing, hunting, and trapping; propagation and stocking of fish; acquisition of wildlife management areas; the registration of snowmobiles, watercraft, and all-terrain vehicles; safety programs for hunters, snowmobilers, and watercraft; and the issuing of licenses (hunting, fishing, trapping, and guiding) and permits.

**Main Historic Preservation Commission (MHPC):** The agency which functions as the State Historic Preservation Office in Maine. The Maine Historic Preservation Commission is responsible for the identification, evaluation, and protection of Maine's significant cultural resources.

**Mainstem:** The principal channel of a drainage system into which other smaller streams or rivers flow.

**Marsh:** A wetland where the dominant vegetation is nonwoody plants, such as grasses, as compared with a swamp where the dominant vegetation is woody plants, such as trees and shrubs. Marshes are also known as emergent wetlands.

**Mast:** Nuts accumulated on the forest floor and used as food by wildlife.

**Material Safety Data Sheets (MSDSs):** Material Safety Data Sheets are required by the Occupational Safety and Health Administration and provide details on chemical and physical dangers, safety procedures, and emergency response for chemicals.

**Megawatt (MW):** The electrical unit of power that equals 1 million watts or 1,000 kilowatts.

**Meteorology:** The science dealing with the dynamics of the atmosphere and its phenomena, especially relating to weather.

**Mineral:** Naturally occurring inorganic element or compound.

**Migration:** The change of location periodically, especially by moving seasonally from one region to another.

**Minority population:** Individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not Hispanic origin, or Hispanic are minorities. The Council of Environmental Quality identifies these groups as minority populations when either (1) the minority population of the affected area exceeds 50%, or (2) the minority population percentage in the affected area is meaningfully greater than the minority population percentage in the general population or appropriate unit of geographical analysis.

**Mitigate:** To lessen the severity of an impact to a resource.

**Mitigation:** Includes avoiding the impacts by not taking actions; minimizing the impacts by limiting the degree or magnitude of the action; rectifying the impact through repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance during the life of the action; and compensating for the impact. Defined at 40 CFR 1508.20.

**Mixed forest:** Forest stands occupied by a mixture of softwood and hardwood tree species. Neither hardwood nor softwood tree species occupy more than 75% of the tree stocking.

**Moraine:** A type of glacial landform composed of debris ranging from sand, clay, and rock fragments to immense boulders that have been picked up, moved, and deposited by a glacier.

**Mutagenic:** Causing mutation, or the abrupt change in the genotype of an organism.

**National Ambient Air Quality Standards (NAAQS):** Standards defining the highest allowable levels of certain pollutants in the ambient air. Because the U.S. Environmental Protection Agency must establish the criteria for setting these standards, the regulated pollutants are called criteria pollutants. The criteria pollutants are sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, lead, and particulate matter.

**National Oceanic and Atmospheric Administration (NOAA) Fisheries:** Part of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration Fisheries Office of Protected Resources is charged with the implementation of the Endangered Species Act of 1973 for marine and anadromous species. National Oceanic and Atmospheric Administration Fisheries is properly referred to as the National Marine Fisheries Service (NMFS).

**National Register of Historic Places (NRHP):** A list maintained by the Secretary of the Interior of districts, sites, buildings, structures, and objects of prehistoric or historic local, State, or national significance. The list is expanded as authorized by Section 2(b) of the Historic Sites Act of 1935 (16 USC 462) and Section 101(a)(1)(A) of the National Historic Policy Act.

**Native American:** A person culturally identified with a Tribe that is indigenous to the United States.

**Native species:** Plants and animals that originated in the area in which they are found, that is, they naturally occur in the area.

**Natural community:** As defined by the Maine Natural Areas Program, a natural community is an assemblage of interacting plants and animals and their common environment, recurring across the landscape, in which the effects of human intervention are minimal.

**Neotropical migrant:** Birds that nest in North America and migrate to winter in Central or South America, Mexico, or the Caribbean.

**Nitrogen dioxide (NO<sub>2</sub>):** See *Nitrogen oxides*.

**Nitrogen oxides (NO<sub>x</sub>):** Oxides of nitrogen include various nitrogen compounds, primarily nitrogen dioxide and nitrous oxide. They form when fossil fuels are burned at high temperatures and react with volatile organic compounds to form ozone, the main component of urban smog. They are also precursor pollutants that contribute to the formation of acid precipitation. Nitrogen dioxide is a nitrogen oxide and one of the six criteria air pollutants for which the U.S. Environmental Protection Agency has set National Ambient Air Quality Standards.

**Noise:** Unwanted or undesirable sound, usually characterized as being so loud as to interfere with, or be inappropriate to, normal activities such as communication, sleep, or study.

**Nonattainment area:** An area that the U.S. Environmental Protection Agency has designated as not meeting one or more of the National Ambient Air Quality Standards for criteria pollutants. An area may be in attainment for some pollutants but not others.

**Nonforest land:** Land that has never supported forests, or land formerly forested but now in nonforest use (e.g., cropland, pasture, residential areas, marshes, swamps, highways, and industrial or commercial uses).

**Nongame species:** Wildlife species that are typically not hunted, either by common practice or by State wildlife laws. Examples include songbirds, eagles, insects, and most reptiles and amphibians.

**Non-point-source pollution:** Pollution caused by a diffused or indirect source, such as a drainage field or runoff following a rain.

**Nutrients:** In the forest context, nutrients are mineral elements such as nitrogen, phosphorus, or potassium that are naturally present or may be added to the woodland environment by practices such as fertilizer applications. Nutrients are necessary for the growth and reproduction of organisms. In water, nutrients, chiefly nitrates and phosphates, promote the growth of algae and bacteria.

**Occupational Safety and Health Administration (OSHA):** Congress created the Occupational Safety and Health Administration under the Occupational Safety and Health Act on December 29, 1970. Its mission is to prevent work-related injuries, illnesses, and death.



**Old-growth forest:** A wooded area that has no evidence of harvest or alteration by humans. An old-growth forest often has large individual trees, a multilayered crown canopy, and a significant accumulation of large woody material such as snags and fallen logs.

**Oriented strand board:** A manufactured wood panel made out of small chips of wood scraps and glue to create a strong sheet material that is often used in place of plywood.

**Outstanding River Segments:** Rivers declared by the Maine Legislature to provide irreplaceable social and economic benefits to people because of their unparalleled natural and recreational values.

**Overstory:** The level of forest canopy that includes the crowns of dominant, codominant, and intermediate trees.

**Ozone (O<sub>3</sub>):** The triatomic form of oxygen. It is formed in the atmosphere by chemical reactions involving nitrogen oxides and volatile organic compounds. The reactions are energized by sunlight. Ozone is a major constituent of smog and is one of six criteria air pollutants for which the U.S. Environmental Protection Agency has set National Ambient Air Quality Standards.

**Palustrine:** Pertaining to wet or marshy habitats.

**Parr:** Young freshwater salmon in stage from dispersal from the redd to migration as a smolt.

**Particulate matter:** Fine solid or liquid particles, such as dust, smoke, mist, fumes, or smog, found in air or emissions. The size of the particulates is measured in micrometers (µm). One micrometer is 1 millionth of a meter or 0.000039 inch. Particle size is important because the U.S. Environmental Protection Agency has National Ambient Air Quality Standards for particulates. See *PM<sub>2.5</sub>* and *PM<sub>10</sub>*.

**Particulates:** Solid or liquid particles, such as dust, smoke, mist, or smog, small enough to become airborne.

**Passerines:** Perching birds or songbirds.

**Peak capacity:** The maximum capacity of an electricity system to meet power loads.

**Peak demand:** The highest demand for power during a stated period of time.

**Peat:** Organic material that forms in the waterlogged, sterile, acidic conditions of bogs and fens.

**Peatland:** A type of poorly drained wetland with accumulations of partially decomposed plants and other organic materials.

**Permeability:** The ability of rock or soil to transmit a fluid.

**Perennial stream:** A stream that normally maintains water in its channel all year.

**Pesticide:** Any chemical used to control undesirable insects, vegetation, or animals, or to guard against or treat a forest or crop health problem.

**Phase:** The time relationship between the oscillations of two alternating currents. For technical reasons, electric power is often transmitted using three wires, each of which has a current that is one-third of a cycle behind the other (three-phase current).

**PM<sub>10</sub>:** Airborne particulate matter with a mean aerodynamic diameter less than or equal to 10 µm; regulated under the National Ambient Air Quality Standards.

**PM<sub>2.5</sub>:** Airborne particulate matter with a mean aerodynamic diameter less than or equal to 2.5 µm; regulated under the National Ambient Air Quality Standards.

**Physiography:** The physical geography of an area or the description of its physical features.

**pH:** A measure of acidity or alkalinity. A pH of 7 is neutral, lower values are more acidic, and higher values are more alkaline.

**Photochemical oxidants:** Secondary gaseous pollutants (e.g., ozone) created in the atmosphere from conversions and reactions of primary gaseous pollutants (such as sulfur oxides and nitrogen oxides).

**Physiographic province:** A region in which the landforms are similar in geologic structure and differ significantly from the landform patterns in adjacent regions.

**Physiography:** The physical geography of an area or the description of its physical features.

**Point-source pollution:** Pollution coming from a very specific source, such as an exhaust stack.

**Poletimber tree:** A tree that is at least 5.0-in. (12.7-cm) in diameter at breast height, but smaller than sawtimber trees. Softwood poletimber trees range from 5.0 to 8.9 in. (12.7 to 22.6 cm) in diameter at breast height, while hardwood poletimber trees range from 5.0 to 10.9 in. (12.7 to 27.7 cm) in diameter at breast height.

**Pollutant:** Any waste matter or undesirable material entering the environment that contaminates the air, water, or soil.

**Pollution:** The addition of an undesirable agent to the environment in excess of the rate at which natural processes can degrade, assimilate, or disperse it.

**Polychlorinated biphenyls (PCBs):** A hazardous group of manufactured organic compounds made up of carbon, hydrogen, and chlorine. They were used in the manufacture of plastics and as insulating fluids for electrical equipment. Because they are very stable and fat-soluble, they accumulate in ever-higher concentrations as they move up the food chain. Their use was banned in the United States in 1979.

**Population:** A group of individuals of the same species occupying a defined locality during a given time that exhibit reproductive continuity from generation to generation.

**Potable water:** Water that can be used for human consumption.

**Power frequency:** The frequency of the alternating current used for transmission and distribution of electric power. Power frequency is 60 Hz in North American and 50 Hz elsewhere.

**Power grid:** The power grid encompasses a network of long-distance, high-voltage transmission lines, substations, and distribution lines carrying electricity that is distributed to customers of local utilities.

**Prehistoric:** Of, relating to, or existing in times antedating written history. Prehistoric cultural resources are those that antedate written records of the human cultures that produced them.

**Prime farmland:** The U.S. Department of Agriculture defines prime farmland as the land that is best suited to producing food, feed, forage, fiber, and oilseed crops. It has the soil quality, growing season, and moisture supply needed to produce a sustained high yield of crops while using acceptable farming methods. Prime farmlands produce the highest yields and require minimal amounts of energy and economic resources.

**Pulp or pulpwood:** Wood suitable for use in paper manufacturing.

**Raptor:** Birds of prey, including various hawks, falcons, eagles, vultures, and owls.

**Redd:** The depression female salmon make in the gravel on the river or stream bed in which their eggs are laid.

**Region of influence (ROI):** The area, specific to each resource studied, that will likely be impacted by the proposed project. The largest region of influence (e.g., for socioeconomics) includes Hancock, Penobscot, and Washington Counties.

**Reliability:** The ability of a transmission system to respond to the loss of a line or other component without the customer, end user, and possibly generators being adversely impacted (i.e., the system continues to provide continuous service when unplanned events such as transmission lines or generators go out of service).

**Revenue requirements:** The amount of money that must be recovered or generated in order to pay for the interest, depreciation, taxes, insurance, fuel costs, and all other variable expenses associated with the construction, operation, and maintenance of a project.

**Richter scale:** A logarithmic scale used to express the total amount of energy released by an earthquake. The scale has 10 divisions, from 1 (not felt by humans) to 10 (nearly total destruction).

**Riffle:** A shallow area of a stream in which water flows rapidly over a rocky or gravelly stream bed.

**Right-of-way (ROW):** An easement for a certain purpose over the land, such as a strip of land used for a transmission line, roadway, or pipeline.

**Riparian:** Of or pertaining to the bank or shoreline area of a river, stream, lake, or other water bodies.

**Risk:** The probability that an event (usually an unwanted event) will occur.

**Runoff:** The portion of rainfall, melted snow, or irrigation water that flows across the ground surface and may eventually enter water bodies.

**Salmonid:** A fish belonging to the family *Salmonidae*, which includes salmon and trout.

**Sapling tree:** A live tree that is 1.0 to 4.9 in. (2.5 to 12.4 cm) in diameter at breast height.

**Sawlog:** A log of sufficient size and quality to be sawed economically for use in lumber and other products.

**Sawtimber tree:** Softwood trees that are at least 9.0 in. (22.9 cm) in diameter at breast height or hardwood trees that are at least 11.0 in. (27.9 cm) in diameter at breast height, that contain at least one 12-ft (3.7-m)-long log or two noncontiguous 8.0-ft (2.4-m)-long logs, that meet the minimum sawlog grade specifications. In addition, the tree must have a third or more of its gross board foot volume as merchantable material.

**Scoping:** An early, open part of the National Environmental Policy Act (NEPA) process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.

**Scrub-shrub:** Woody vegetation less than about 20 ft (6 m) tall. Species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions.

**Scrub-shrub wetland:** A wetland dominated by scrub-shrub species.

**Secondary contact recreation:** Recreational activities, such as fishing or boating, that do not generally involve continual direct contact with the water as do such water recreational activities as swimming.

**Section 7 of the Endangered Species Act (ESA):** The section of the Endangered Species Act that requires all Federal agencies, in consultation with the U.S. Department of the Interior U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration National Marine Fisheries Service to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat.

**Sedges:** Grasslike plants common to most freshwater wetlands.

**Sediment:** Soil or rock particles that have been transported to stream channels or other bodies of water. Sediment input comes from natural sources, such as soil erosion and rock weathering, as well as from agricultural and construction practices.

**Sedimentation:** The removal, transport, and deposition of sediment particles by wind or water.

**Seismic:** Pertaining to any earth vibration, especially an earthquake.

**Selective harvest:** Often used as a catchall phrase for all types of partial cuttings in forests.

**Short-term impacts:** Short-term impacts are defined as those effects that would not last longer than the life of the project. Often, short-term impacts last for a few days, months, or years; for example, those that last only during the construction period are considered short-term impacts.

**Silt:** Sedimentary material consisting of fine mineral particles intermediate in size between sand and clay.

**Silt fence:** A temporary barrier used to intercept sediment-laden runoff from small areas.

**Silviculture:** The art and science of growing and tending forest trees.

**Skid:** To drag logs or tree lengths, either wholly or partially on the ground.

**Skid trail or road:** An unsurfaced single-lane road used by skidders and other extraction equipment to access forest products for transport from the harvest area to the yard or landing.

**Skidder:** A generic term for a machine (usually rubber-tired) with a cable winch or grapple used to drag logs out of the forest.

**Slash:** Unutilized and generally unmarketable accumulation of woody material in the woodland, such as limbs, tops, cull logs, and stumps, remaining after timber harvesting.

**Smolt:** Juvenile salmon that are migrating or about to migrate to the sea.

**Snag:** Dead, standing trees, often with the tops broken off. Snags serve as perches and lookouts and provide important food or cover for a wide variety of wildlife species.

**Socioeconomics:** The social and economic conditions in the study area.

**Softwoods:** General term for coniferous trees (gymnosperms).

**Soil:** The unconsolidated material on the surface of the earth that serves as a natural medium for the growth of land plants.

**Spawning:** In aquatic organisms, the act of producing and fertilizing eggs.

**Special status species:** Includes Federally and State listed species. These include endangered species, threatened species, and species of special concern.

**Species of special concern:** A Maine classification for a species whose population has been shown to be suffering a decline that could threaten the species in the area if allowed to continue unchecked, or for a species that occurs in such small numbers or with such a restricted distribution or specialized habitat that it could easily become threatened.

**Staging area:** Construction headquarters along the route where materials are received, stored, and shipped to the right-of-way.

**Stand-size class:** A group of forest trees of sufficiently uniform species, composition, age, and condition to be considered a homogeneous unit for management purposes.

**State Historic Preservation Officer (SHPO):** The official within each State, authorized by the State at the request of the Secretary of the Interior, to act as liaison for purposes of implementing the National Historic Preservation Act.

**State Implementation Plan (SIP):** A plan developed at the State level and enforceable by the U.S. Environmental Protection Agency, in which the State explains how it will comply with the National Ambient Air Quality Standards.

**Streamside management zone:** A forested area beside a stream or other water body that is managed to protect the values associated with the water body such as water quality and habitat.

**Subsistence:** The noncommercial acquisition of naturally occurring renewable resources harvested for traditional and customary uses. Subsistence activities can include hunting, fishing, trapping, and collecting.

**Substation:** A facility with transformers where voltage on transmission lines changes from one level to another.

**Substrate:** Defined materials such as boulders, gravel, cobble, etc., that form the bottom surface of a stream or river.

**Succession:** The natural replacement of one plant or animal community by another over time in the absence of disturbance.

**Sulfur dioxide (SO<sub>2</sub>):** A gas formed from burning fossil fuels. Sulfur dioxide is one of six criteria air pollutants for which the U.S. Environmental Protection Agency has set National Ambient Air Quality Standards.

**Surface water:** Bodies of water on the surface of the earth that are open to the atmosphere, such as rivers, lakes, reservoirs, ponds, seas, and estuaries.

**Swale:** An elongated depression in the landscape that is seasonally wet or marshy, is usually heavily vegetated with marsh grasses, and is normally without flowing water.

**System reliability:** System reliability refers to electrical system reliability; that is, the degree of confidence that the Bangor Hydro-Electric Company and New England Power Pool can place on the certainty of electrical supply. A reliable electric system is one that allows for few involuntary interruptions of services to customers.

**Talus:** Rock debris at the base of a cliff.

**Threatened species:** A species Federally listed by the U.S. Department of the Interior U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration National Marine Fisheries Service likely to become endangered in the future throughout all or most of its range. Some States also list species as threatened.

**Timberland:** Forest that is producing, or capable of producing, crops of industrial wood and that is not withdrawn from timber utilization by statute or administrative designation.

**Topography:** The configuration of the earth's surface, including the shape, elevation, and position of its natural and man-made features.

**Toxicity:** The ability of a substance to cause damage or death to cells, tissues, or organisms when the substance is inhaled, ingested, or absorbed by the skin.

**Traditional cultural properties:** Areas of significance to the beliefs, customs, and practices of a community of people that have been passed down through generations.

**Transmission line:** The structures, insulators, conductors, and other equipment used to transfer electrical power from one point to another.

**Turbidity:** A measure of the cloudiness or opaqueness of water. Typically, turbidity increases with increasing concentration of suspended material.

**Understory:** The smaller vegetation (shrubs, seedlings, saplings, and small trees) within a forest stand, occupying the vertical zone between the overstory and the herbaceous plants of the forest floor.

**Ungulate:** Any four-footed, hoofed, grazing mammal (e.g., deer, moose, cattle, horses).

**U.S. Environmental Protection Agency (EPA):** The independent Federal agency, established in 1970, that regulates Federal environmental matters and oversees the implementation of Federal environmental laws.

**U.S. Fish and Wildlife Service (USFWS):** Part of the U.S. Department of the Interior, the U.S. Fish and Wildlife Service shares the responsibility with the National Oceanic and Atmospheric Administration National Marine Fisheries Service for the Endangered Species Act. The U.S. Fish and Wildlife Service uses its existing authorities to conserve threatened and endangered species and ensures that actions do not jeopardize listed species or destroy or adversely modify critical habitat.

**Vagrants:** Individuals of a species that move by natural means from one geographical region to another outside their usual range, or away from usual migratory routes, without establishing a new population in the region.

**Vantage:** A position that provides an extensive view and strategic advantage.

**Vernal pool:** An ephemeral body of water that fills in the spring, holds water for at least 10 days, dries up by fall some or all years, and does not contain fish. Vernal pools are extremely important habitat for a variety of amphibians and reptiles.

**Viewshed:** The total landscape seen or potentially seen from all or a logical part of a travel route, use area, or water body.

**Visual Resource Management (VRM):** The planning, design, and implementation of management objectives for maintaining scenic values and visual quality.

**Visual resources:** The composite of basic terrain, geologic features, hydrological features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal that the unit may have.

**Volatile organic compounds (VOCs):** A broad range of organic compounds that produce vapors at relatively low temperatures, such as gasoline and solvents. They contribute significantly to photochemical smog production and certain health problems.

**Volt:** The unit of voltage or potential difference. It is the electromotive force that, if steadily applied to a circuit having a resistance of 1 ohm, will produce a current of 1 ampere.

**Voltage:** Potential for an electric charge to do work; source of an electric field.

**Warmwater fisheries:** Fish assemblages characterized by sunfish and bass (as well as by other species such as carp, most suckers, and bullheads). Warmwater species generally inhabit waters with temperature ranges within which trout and other coldwater species cannot maintain self-sustaining populations.



**Water quality guideline:** A statement of a measurable value of a water quality parameter recommended to support a given general water use.

**Water quality objective:** A statement of a measurable value of a water quality parameter that has been established as necessary to support given water use at a specified site.

**Water quality standard:** A legally enforceable requirement to maintain a specified measurable water quality value.

**Watershed:** The land area that drains into a given water system.

**Watt:** The absolute meter-kilogram-second unit of power equal to the work done at the rate of one joule per second or to the power produced by a current of one ampere across a potential difference of one volt.

**Wetland:** An area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

**Wildlife habitat:** The native environment of an animal that provides all the elements needed for its life and growth (food, water, cover, and space).

**Windthrow (or blowdowns):** A tree felled by wind, common among shallow-rooted species and in areas where cutting has reduced stand density.